THE ROLE OF SCHOOLS IN INSTILLING ECOLITERACY TO BUILD STUDENTS' ENVIRONMENTAL AWARENESS: A CASE STUDY AT SDN SUSUKAN 07 PAGI

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Abstract

This research is motivated by the growing global environmental crisis, exemplified by climate change, which requires serious attention. However, public awareness off environmental issues remains low, especially among younger generations, as reflected in their daily habits and behaviors that do not support environmental sustainability. This lack of awareness highlights the crucial role of schools in instilling ecoliteracy in students. Ecoliteracy is not only about understanding the environment but also about being aware of the impact of individual behaviors on ecosystems, which can contribute to the formation of sustainable behaviors in the long term. The purpose of this research is to determine the role and supporting as well as inhibiting factors of schools in instilling ecoliteracy to build students environmental awareness. The research uses a qualitative approach with a case study design to gain in-depth understanding. This research was conducted at SDN Susukan 07 Pagi with class V participants. Data collection techniques include interviews, observations, and documentation to gather informations from informants. Data analysis used the Miles and Huberman. The results of the research indicate that the school plays an important role in instilling ecoliteracy through the curriculum, extracurricular activities, and special environmental programs. At SDN Susukan 07 Pagi, ecoliteracy is implemented through the Merdeka curriculum, which integrates environmental materials into learning and school's programs. This effort is supported by routine habituation activities such as work group ceremonies, the LISA (Lihat Sampah Ambil) program, spontaneous activities, role modeling from teachers and the principal, and good environmental conditioning. In conclusion, school activities effectively contribute to the instillation of ecoliteracy.

Keywords: Ecoliteracy; Environmental Awareness; School

Abstrak

Penelitian ini dilatarbelakangi oleh meningkatnya krisis lingkungan global yang semakin meningkat, ditandai dengan salah satu contohnya adalah perubahan iklim yang membutuhkan perhatian serius. Namun, kesadaran masyarakat terhadap isu-isu lingkungan masih rendah, terutama di kalangan generasi muda, yang tercermin dari kebiasaan dan perilaku sehari-hari yang tidak mendukung keberlanjutan lingkungan. Rendahnya kesadaran ini menekankan pentingnya peran sekolah dalam menanamkan ekoliterasi kepada siswa. Ekoliterasi bukan hanya pemahaman tentang lingkungan, tetapi juga kesadaran akan dampak perilaku individu terhadap ekosistem, yang dapat berkontribusi pada pembentukan perilaku berkelanjutan secara jangka panjang. Tujuan penelitian ini adalah untuk mengetahui peran, faktor pendukung, dan penghambat sekolah dalam penanaman ekoliterasi untuk membangun kesadaran lingkungan siswa. Kajian penelitian ini menggunakan pendekatan kualitatif dengan menerapkan desain studi kasus untuk memperoleh pemahaman yang mendalam. Penelitian ini dilaksanakan di SDN Susukan 07 Pagi dengan partisipan kelas V. Teknik pengumpulan data yang digunakan meliputi wawancara, observasi, dan dokumentasi untuk mendapatkan data dari informan. Analisis data menggunakan model Miles dan Huberman. Hasil penelitian menunjukkan bahwa sekolah memiliki peran penting dalam menanamkan ekoliterasi melalui kurikulum, kegiatan ekstrakulikuler, dan program-program khusus lingkungan. Di SDN Susukan 07 Pagi, penanaman ekoliterasi diterapkan melalui Kurikulum Merdeka yang mengintegrasikan materi lingkungan dalam pembelajaran.dan program sekolah. Upaya penanaman ekoliterasi ini didukung dengan kegiatan pembiasaan rutin seperti apel pokja, program LISA (Lihat Sampah Ambil), kegiatan spontan, keteladanan dari guru dan kepala sekolah, serta pengkondisian lingkungan yang baik. Kesimpulannya adalah kegiatan sekolah berperan secara efektif dalam penanaman ekoliterasi.

Kata Kunci: Ekoliterasi; Penanaman; Kesadaran Lingkungan; Peran Sekolah

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Introduction

Environmental problems have become a serious concern not only in Indonesia but also on a global scale. The increasing severity of global issues such a climate change, deforestation, biodiversity loss, and pollution are significantly disrupting ecosystems and threatning human survival (IPCC, 2022). The complexity of environmental problems and the increasing number of populations can cause disturbances in the ecosystem (Permata & Agung Wibowo, 2023) Negligence and lack of awareness of the impact of human actions on the environment increasingly open up opportunities for problems to occur in the environment. On a global level, china faces major challenges with plastic pollution, compouned by its role as both the largest producer and consumer of plastics globally, generating 63 million tonnes of plastic waste in 2019 while the buried, incinerated and recycle ones each accounted for about one third, with the remaining 7% thrown into the environment, which amount of recycle plasticss reached 18,9 million tons (IPEN, 2022). Similarly, Indonesia has also been strugling with its own waste crisis. In the dimension of waste management, based on data from the Central Agency for Environmental Statistics in 2023, DKI Jakarta Province, especially East Jakarta City, produces 844,252.43 tons of waste (Badan Pusat Statistik, 2023) This shows how serious the problem of waste management is in big cities.

Waste sources are not only limited to households, but schools are also a significant contributor to waste production. In the school environment, the use of products that are generally packaged with plastic cannot be avoided by students. As explained by Gunadi that children at elementary school age are one of the main target markets with great potential in selling various food products or snacks packaged in plastic (Gunadi et al., 2020). As a result, plastic waste is one of the main contributors to waste generation in schools and can have a bad impact on health and the environment.

In a study conducted by Yudianti et al., (2020) at an elementary school in East Java that received an award as an Adiwiyata school, it was found that some students littered and did not receive reprimands from their friends. This reflects the lack of understanding and environmental awareness about environmental concern among students. And there are several schools that remain dirty, with only a few students participating in environmental activities, and few students are aware of how their behavior impacts the environment, many waste resources carelessly, and there is a general apathy toward environmental protection within the community (Adela & Suprapmanto, 2023). Field observation indicate that the current environmental damage is largely caused by irresponsible human behavior toward the environment (Ardiansyah, 2022). Lack of knowledge in waste management is one of the factors that cause the increase in waste volume (Rahmahdini et al., 2018). The same results were found in a study (Karlina et al., 2017) which showed that there are still many students' behavior that is careless in throwing garbage and does not care about the waste in the pot so that the plant becomes wilted and dry. Therefore, awareness is important in encouraging human behavior that can be responsible for nature (Rusdina, 2015)

This, education is very necessary in making people aware of the importance of preserving the environment. Education has an important role in building human ecological beliefs, comprehension and behavior (Siswanto; et al., 2019). Through education, students can be equipped with knowledge of environmental issues and the ability to identify and implement

environmentally friendly solutions. Schools are institutions that have an important role and responsibility in instilling positive values and characters in students to maintain and preserve life in a sustainable (Khoerunisa, 2024) Planting environmental awareness that is in harmony with preserving nature in schools can encourage students' understanding so that they can form a generation that is more aware and responsible for environmental sustainability. This concept is called ecoliteracy which focuses on understanding and awareness of the complex relationship between humans and the natural environment (Keraf, 2014).

Ecoliteracy is the ability of humans who are sensitive to nature to adapt to the ecological environment in which our environment is located (Goleman, 2010) A person who has sensitivity to the environment will realize that every action can have an impact on humans and nature. The purpose of ecoliteration is to ensure that every individual can live in harmony with nature without causing damage to the balance of nature (Yasa, 2020). Therefore, schools need to have a strong commitment to structurally integrate positive values and attitudes towards the environment into the programs that have been designed by the school for students as basic knowledge so that they can become individuals who have an understanding or ecological literacy that is able to identify and overcome environmental problems and be encouraged to adopt environmentally friendly habits so that they can foster students' awareness to maintain and take care of the environment.

The importance of environmental education in equipping students with the knowledge and skills necessary to engage in sustainable practices has grown significantly in recent years. The concept of ecoliteracy, which refers to the ability to understand and respond to the natural systems that sustain life, has become a central focus in the fields of research and education. According to Firinci Orman (2024), ecoliteracy plays an important role not only in raising individual awareness but also in supporting sustainability initiatives at the community level. Research by Diana Setyaningsih, et al (2024) also found that students who participate in ecoliteracy programs tend to exhibit more pro-environmental behavior, both at school and at home.

However, despite the growing body of literature, research on how ecoliteracy can be effectively instilled at the elementary school level in Indonesia remains limited. Specifically, there are few studies examining public schools participating in the "Sekolah Penggerak" program, which aims to holistically develop students' learning outcomes, including literacy, numeracy, and character development. As a school designated as a "Sekolah Penggerak," SDN Susukan 07 Pagi has taken steps to integrate ecoliteracy into its character education curriculum in order to raise students' environmental awareness. Initial observations indicate that the school has implemented various ecoliteracy-based activities that are well-participated in by the students.

Based on these initial findings, this research aims to explore the role of SDN Susukan 07 Pagi in promoting ecoliteracy to enhance students' environmental awareness. Additionally, this study seeks to identify the factors that support and hinder the successful cultivation of ecoliteracy in this context. The results of this research are expected to provide valuable insights into how schools can serve as key agents in instilling ecoliteracy and building a sustainable future through structured educational programs.

Research Methods

This study employs a qualitative approach. Qualitative research seeks to analyze events experienced by subjects through detailed verbal descriptions, drawing from their personal experiences (Anto et al., 2024). This research applies a case study design to gain an in-depth understanding. A case study is a series of scientific activities that are carried out in an intensive, detailed, and in-depth manner related to programs, activities, or events, either at the individual, group, organization, or institution level, to obtain in-depth information about the event (Mudjia, 2017)

This research was conducted at SDN Susukan 07 Pagi in May 2024, utilizing a methodology that included observation, interviews, and documentation to gain a comprehensive understanding of how ecoliteracy is instilled in students. The observation technique involved directly monitoring student behavior in the school environment, focusing on their comprehension and application of ecoliteracy concepts in daily activities. In-depth interviews were conducted with the school principal, two class V teachers, and 15 class V students, selected through purposive sampling due to their active engagement in lessons related to ecoliteracy. This sample was chosen as the class V curriculum includes relevant materials on environmental awareness and sustainability. Documentation techniques were employed to gather visual and written records of student activities, such as gardening and recycling, providing supplementary data to support the findings from observations and interviews. SDN Susukan 07 Pagi was specifically selected for this study because of its designation as a "Sekolah Penggerak," a program that emphasizes holistic student development, including character education and environmental awareness, thereby making it an ideal setting for researching the integration of ecoliteracy into the curriculum.

Comprehensive data on informants' perceptions and experiences of ecoliteracy were collected through direct observation of students' behavior and interactions within the school environment. In-depth interviews were conducted with key school personnel, and relevant documentation was gathered to illustrate the cultivation of ecoliteracy. This documentation included program outlines, activity reports, and photographs of student involvement in green initiatives, providing important context for the observation and interview data. Data analysis was performed using the Miles and Huberman model, which encompasses data collection, reduction, presentation, and drawing conclusions. This structured approach facilitated the systematic organization and interpretation of data collected from all instruments. The analysis focused on specific indicators, including students' engagement in ecoliteracy activities, teachers' roles in promoting environmental education, and the availability of resources that support these efforts. To ensure data validity, a source triangulation approach was employed, enhancing credibility by comparing information from various sources, thus offering a comprehensive understanding of the research topic (Staller & Chen, 2022).

Results and Discussion

The findings and data analysis in this study are compiled based on the research objectives, namely: (1) the role of schools in instilling ecoliteracy to build students' environmental awareness, and (2) supporting and inhibiting factors of schools in instilling ecoliteracy at SDN Susukan 07 Pagi. From the results of data collection, it was found that schools succeeded in building students' environmental awareness through the integration of environmental education in each subject and through self-development activities such as routine habituation, spontaneous activities, exemplary, and environmental conditioning. In addition, the school also collaborates with teachers, school staff, students, and parents in supporting the ecoliteracy planting program.

The results of the study are summarized in a table that summarizes school activities in implementing ecoliteracy cultivation at SDN Susukan 07 Pagi shown in the table below:

Table 1
Ecoliteracy Planting Activity at SDN Susukan 07 Pagi

Types of Activities	Frequency	Purpose	Impact on Environmental Awareness
LISA (Lihat Sampah Ambil)	Daily	Getting students used to always maintaining cleanliness	Students are more sensitive to environmental cleanliness
Pokja Appeal	Weekly (Tuesday)	Fostering cooperation and responsibility	Increased cooperation and a sense of responsibility for each group task
Clean Friday	Once every 2 weeks	Improve the cleanliness of the school environment	Students become more aware of the importance of maintaining the cleanliness of the environment and the school environment to be clean and beautiful
Ecobricks Project	Scout extracurricular integrated activities	Teaching recycling	Students understand the importance of recycling
Integrative Learning	-	Integrating ecological knowledge in learning	Students better understand ecological concepts
Garden Competition	-	Developing students' creativity and responsibility in caring for the environment	Students are more motivated to actively participate in activities

Source: Personal (2024)

Based on Table 1.1, the activities are designed to increase students' environmental awareness. The LISA (Lihat Sampah Ambil) activity is conducted daily with the aim of instilling a habit of maintaining cleanliness among students, resulting in increased sensitivity toward environmental cleanliness. Pokja Appeal, held weekly, aims to enhance students' sense of responsibility for group tasks. Clean Friday, which takes place every two weeks, focuses on improving the school's environment and raising students' awareness of the importance of keeping their surroundings clean. Through the Ecobricks Project, students are taught the importance of recycling, which enhances their understanding of recycling practices. Integrative Learning, which incorporates ecological knowledge into the learning process, helps students gain a deeper understanding of ecological concepts, while the Garden Competition encourages students to develop their creativity in caring for the environment and motivates them to actively participate in environmental activities.

These activities align with environmental education theories that emphasize the importance of not only teaching students about the environment but also involving them in hands-on activities that foster personal responsibility. According to David Orr's Ecoliteracy Theory, students should learn through practical experiences rather than abstract theories, as demonstrated in activities like the Ecobricks Project and Garden Competition, where the practical nature of these activities allows students to see the tangible impact of their actions, thereby deepening their understanding and commitment to environmental issues. Moreover, Pokja Appeal and Clean Friday are consistent with research on collaborative learning, which suggests that working in groups fosters a sense of shared responsibility and encourages

sustainable habits (Desmarais, 2024). By engaging in environmental activities consistently, students develop a personal investment in the well-being of their surroundings, which is supported by recent research on behavioral change in environmental education.

The role of schools in instilling ecoliteracy is very important in an effort to build students' environmental awareness. As an educational institution, schools are not only responsible for providing academic knowledge, but also for shaping character and positive behavior towards the environment. As revealed in the research (Patrisiana et al., 2020) that elementary school education, which is part of strengthening environmental ecoliteracy, aims to be able to develop individual abilities in interacting with their environment consciously and planned, which is carried out by developing students' potential directly related to the environment, so as to create significant changes and progress in preserving the environment. Thus, students are expected to form a character that cares about the environment and understands the importance of preserving nature, as well as being able to implement ecoliteracy knowledge in daily life. Because with the ability to be environmentally literate, aware, and sensitive will contribute to facing environmental problems (Köse et al., 2011)

In the supervision stage, the principal has the main responsibility to monitor and evaluate the progress of the entire program of ecoliteration activities, ensuring whether the program runs smoothly or faces obstacles. In addition, as a manager, the principal also plays a role as a leader in providing examples and motivation to students so that they have a high awareness of the environment. As stated (Astuti, 2016) that school principals play a role in environmentally friendly school programs by providing support and motivation, both in terms of facilities, finances, and directions. The principal is an exemplary figure by giving an example to students who care about the environment. This was also expressed by the principal:

"The slogan of loving the environment can be part of students' self-awareness. We want the applied ecoliteracy, through words and actions of loving the environment, to be truly realized and implemented by students. With an ecoliteracy program, students learn to realize the importance of their role for the future. In elementary school, we focus on example and routine, so that environmental behavior becomes a habit. Hopefully, these habits will be brought to the home and the surrounding environment, making students agents of change who inspire their communities to take care of the environment". (Principal)

Teachers as educators have an important role in participating in school efforts to instill ecoliteracy to provide an understanding of the importance of maintaining the environment which can be reflected in students' daily behavior. Understanding can also be implemented in habituation. Habituation is a process of repetitive activities that can help accustom a person to understanding and interpreting the environment with an attitude of caring for the environment. As expressed (Tyas et al., 2022) to get used to real actions or behaviors in ecoliteracy, it is important to continuously convey them so that students are used to living responsibly towards nature.

According to Kemendiknas (2018) the formation of habituation can be applied in daily activities at school, for example routine activities, spontaneous activities, exemplary, and conditioning. This is an effective strategy to instill ecoliteracy in schools. The following is the application of ecoliteration to routine habituation activities shown in table 2 below:

Table 2
Routine Habituation Activities at SDN Susukan 07 Pagi

Information Figure

LISA (Lihat Sampah Ambil)

Activities

Each student is expected to pick up any garbage they see and dispose of it properly.



Figure 1. Students pick up garbage that is around when they see garbage scattered

Pokja Appeal (UKS Working Group, Jumantik Working Group, Clean Toilet Working Group, Landscaping Working Group, etc.)

Working groups are one of the environmental awareness activities. Each working group is responsible for routinely carrying out its duties, namely maintenance, data collection, and development.



Figure 2. Students are invited to clean the surrounding environment

Clean Friday

This activity is carried out together with students, teachers, and school staff in cleaning the school area in building a comfortable and healthy learning environment.



Figure 3. Students pick up the remaining trash when the clean Friday has finished

Source: Personal (2024)

A habit of maintaining the environment in the classroom can also be seen in the class agreement which is the result of a joint discussion between teachers and students displayed on the front wall of the classroom where one of the agreements is to always maintain the cleanliness of the classroom. This is obeyed by students in class with regular class pickets and when learning is taking place, students make a small place to dispose of sharpened garbage made of paper and then when it has been collected, a lot are thrown into the trash. Students are also accustomed to bringing tumblers and places to eat or food supplies from home. This is one of the habits to reduce the use of plastic as part of ecoliteracy planting.

Based on the results of observations in the canteen, the researcher found a student who accidentally dropped his food, the teacher who was around the canteen saw the incident and reminded the student to be more careful and directed the student to throw the food that fell into the trash cans. This is in line with the opinion Zultan Molnár , Heiko Luhmann and Patrick Konald (2020) which states that spontaneous activities are actions teachers can undertake to

positively influence students. If students make mistakes during these activities, teachers can immediately correct them by providing guidance and advice to prevent similar mistakes in the future. As role models, teachers must consistently demonstrate environmentally conscious behavior, setting an example that can be followed by all members of the school community.

Exemplary is shown in good deeds and behaviors in daily life as exemplified by teachers (Hasbullah et al., 2019) Not only teachers, principals and education staff at SDN Susukan 07 Pagi are also role models by showing an attitude of caring for the environment in planting ecoliteracy. An exemplary attitude is an attitude that should be exemplified in maintaining the cleanliness of the surrounding environment. Students can emulate and imitate behavior in what their role models see in school. Based on the observations of the principal and teachers in becoming figures for students at school, namely throwing garbage in its place, taking care of plants by removing garbage or dry leaves on the plants. The findings of Sitorus' research show that the example of school principals and teachers can encourage changes in student behavior in terms of caring for the environment (Sitorus & Lasso, 2021) As also revealed by the principal of SDN Susukan 07 Pagi regarding the involvement of teachers and education staff in supporting the cultivation of ecoliteracy in schools, he conveyed the following:

"We synergize with teachers and educators on how to make children understand ecoliteracy in our schools in instilling environmental awareness that is manifested from the example and habituation held by teachers." (Principal)



Figure 4. The teacher gives an explanation to the students to dispose of the plant or dry leaves on the plant

Source: Personal (2024)

Conditioning activities at SDN Susukan 07 Pagi are going well because they are balanced with supporting facilities and infrastructure. School facilities provide cleaning tools, such as brooms, mops, buckets, trash cans, and other cleaning tools that can be used by students, teachers, and employees so that the environment can be kept clean. The existence of trash cans at several points on each floor so that students can reach easily and get used to throwing garbage in its place. The slogans, mading, and posters scattered in schools contain wise messages that can increase students' understanding of ecoliteracy so that students can maintain the health and cleanliness of the environment. In each class, there is also a reading corner and classroom mading that is decorated according to the creativity of each class. In the reading and mading corner, class V provides water cycle works and a book entitled Disaster Rescue which explains how to overcome floods and the importance of environmental greening for water catchment areas and clean air.



Figure 5. B3, Non-Organic, and Organic Trash Bins are located on every classroom floor



Figure 6. Let's recycle the posters of class V students that are displayed in the classroom hallway

Source: Personal (2024)

In the learning process, SDN Susukan 07 Pagi has implemented the Kurikulum Merdeka from grades 1 to 6. The implementation of the Kurikulum Merdeka aims to provide more freedom and flexibility in the learning process. One of the main components of the Kurikulum Merdeka is the Projek Penguatan Profil Pancasila (P5), which focuses on developing students' character and competencies through thematic projects. In P5 learning, grade 1 chose the theme "Sustainable Living" which was implemented with activities such as making works from used bottle caps and tilapia farming. This approach allows students to learn contextually and practically, connecting theory with real practice in the environment. This shows the school's efforts in instilling ecoliteracy by integrating in the learning process to be able to build students' environmental awareness.

The success of teachers in teaching is with the help of learning media. Because with the presence of media in learning, teachers can deliver material optimally and efficiently and students' motivation in learning can also be improved. Because the existence of media in the teaching and learning process can increase the motivation of students and teachers can convey material optimally and efficiently. Therefore, teachers need to show creativity in creating innovative learning media to attract students' attention and increase students' motivation to learn. Learning media tools can be developed from some of the waste in the surrounding environment that is innovative to be able to attract students' attention and increase students' motivation to learn. Learning media aids can be developed simply from some waste in the surrounding environment (Edison, 2015). By utilizing plastic waste in making learning media, it is hoped that students can understand how to recycle waste and increase students' creativity and sense of concern for waste.

In the implementation of the environment-based Kurikulum Merdeka, teachers are responsible for developing ecoliteracy program activities through the learning process by integrating materials about the natural environment. With subject matter adaptations such as IPA-S that explore the concept of ecosystems and the importance of maintaining the balance of nature, students are encouraged to develop their creativity by making respiratory system tools from bottled materials. This is part of an effort to teach students about waste management and the importance of recycling. The concept of ecoliteracy is not only limited to science subjects, but is also aligned with all subjects. As the results of the interview conducted with class V teachers, he said.

"At school, we have used the Kurikulum Merdeka which emphasizes character, creativity, entrepreneurship and life skills. With the alignment of subject matter such as IPAS which learns about ecosystems and the importance of maintaining the balance of nature and then makes the media of respiratory system tools from bottles or in this case students are required to be creative in managing bottle waste into respiratory system tools, which is in the IPAS book how we live and grow on the topic How to breathe helps me doing my daily activities. The concept of ecoliteracy is not only taught in science subjects, but also integrated into all subjects. For example, in Indonesian lessons, we learn poems or short stories about the environment, command sentences about the environment and so on" (Class V teacher)



Figure 7. Students make respiratory system media in IPAS lessons

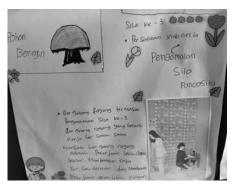


Figure 8. Integration of Ecoliteration in the Practice of Pancasila

Source: Personal (2024)

Students have a great responsibility in actively participating in all activities aimed at implementing environmental education. All students are actively and enthusiastically involved in running the ecoliteration program, participating in activities well, and complying with all regulations that have been set by the school. Ecoliteration activities at SDN Susukan 07 Pagi are planting trees, recycling that produces artwork or used works from used goods, and ecobricks activities during scouting. Environmental awareness can also be instilled in students through extracurricular activities with environmental themes such as scouting (Heryanti et al., 2018) The implementation of ecobricks activities is by collecting used plastic bottles and filling them with small pieces of waste both from paper and plastic and then compacting them with wood, after which arranging the bottles into a framework that reads "SU7UH" as environmentally friendly bricks. The principal's statement on the involvement of students' parents in ecobricks activities is as follows: "We also involve students' parents in the implementation of the Ecobricks program, because for Ecobricks we need 700-800 bottles".



Figure 9. Students make ecobricks and construct the framework "SU7UH" Source: Personal (2024)

SDN Sususkan 07 Pagi also strives to create environmental health in schools to support the cultivation of ecoliteracy, namely by maintaining schools free from mosquito larvae. However, based on observations, there are still some bathrooms that are not clean. Then to ensure the adequacy of light lighting and wise use of natural resources, students have been educated not to use lights during the day and windows to open for natural air exchange.

The role of the school in instilling ecoliteracy to build environmental awareness at SDN Susukan 07 Pagi through the development of a curriculum that includes routine habituation activities, spontaneous activities, exemplary, and conditioning shows a serious effort in forming the character of caring for the environment in students. According to Campbell (2021) ecological literacy or an individual's ability to be ecoliterate, is developed through an understanding of ecological principles alongside sensitivity and concern for the environment, enabling them to make meaningful contributions. This is reflected in the students' environmental awareness, as demonstrated in interview results that highlight how environmental consciousness is incorporated into their daily activities.

Researcher: What do you know about protecting the environment?

KL student: "We have to protect the environment like we can't throw garbage carelessly, we can't throw plastic waste in the right place, because I've seen chicken legs stuck in plastics, I feel bad and I help them release and throw the garbage into the trash cans" KS student: "Taking care of the environment, taking the garbage so that the environment remains clean to avoid diseases from scattered garbage"

Researcher: How do you react when you see garbage thrown in the open air? KL student: "I feel sad, the problem is that if we throw garbage carelessly, the impact will be very big for the environment, if I see it I will reprimand my friends for throwing garbage in the trash"

The role of schools in promoting ecoliteracy aligns with Stone (2017) research, which emphasizes that schools serve as crucial platforms for introducing students to ecoliteracy through various elements such as curriculum, facilities, and budget allocations aimed at protecting the environment. In the case of SDN Susukan 7 Pagi, the school has several factors

that support the successful implementation of ecoliteracy initiatives, as well as challenges that hinder the program's progress. Based on interviews conducted with school staff, it was found that the first factor supporting the success of the ecoliteracy program is the role models provided by teachers and principals. Both teachers and school leaders consistently demonstrate behaviors that reflect care and concern for the environment. By setting these concrete examples, they inspire students to adopt similar practices in preserving the environment. Students become motivated by observing how their educators engage in sustainable activities, and this encourages them to take similar steps.

The second factor is the integration of ecoliteracy into the curriculum and daily routines. The school has successfully aligned ecoliteracy activities with its academic curriculum, incorporating environmental themes into subjects such as IPAS (Integrated Natural Sciences) and Indonesian Language. Moreover, student drama performances that focus on environmental issues provide an interactive and engaging way to reinforce environmental awareness. This creative approach not only deepens students' understanding of environmental challenges but also encourages them to actively participate in finding solutions.

In addition, the school has ensured adequate facilities to support its ecoliteracy efforts. For example, waste separation is practiced by providing labeled trash bins for organic, nonorganic, and hazardous (B3) waste. Each classroom is also equipped with cleaning supplies, fostering a habit of cleanliness and responsibility among students. Furthermore, the schoolyard features positive and inspiring environmental visuals aimed at increasing students' awareness of the need to protect nature. These facilities and visualizations serve as daily reminders of the importance of sustainable actions.

Another key factor is the school's collaboration with external parties. Partnerships have been established with community organizations, such as local RT/RW, Puskesmas, and the parents of students, to further support the ecoliteracy program. These collaborations include socialization efforts and joint activities, which enhance the overall impact of the program within the school and community. By working together with external stakeholders, the school not only broadens the reach of its ecoliteracy initiatives but also taps into additional resources and knowledge that can help improve environmental awareness among both students and staff.

In total, interviews were conducted with several school representatives, including teachers, principals, and administrative staff, to gain a comprehensive understanding of the ecoliteracy program at SDN Susukan 7 Pagi. The results clearly indicate that while there are supportive factors, such as role models, curriculum integration, facilities, and partnerships, there are also challenges that need to be addressed for the program to run even more smoothly.

Factors hindering the implementation of ecoliteracy initiatives were identified through observations and interviews. Observations were conducted at SDN Susukan 7 Pagi, where it was found that, despite the school's efforts to instill ecoliteracy, many students still exhibit poor habits, such as forgetting to dispose of garbage properly. This behavior persists despite regular environmental education efforts. Observations included a sample of two fifth-grade teachers and 15 fifth-grade students to assess their daily environmental practices. This habit of improper garbage disposal indicates that sustained efforts are needed from teachers to provide ongoing reminders and guidance. In addition to these observations, an interview was conducted with the school principal, who highlighted several factors that hindered the successful implementation of the ecoliteracy program at the school.:

Researcher: What are the inhibiting factors in the implementation of the ecoliteracy program in schools to build students' environmental awareness?

Principal: "Every program sometimes has obstacles, for individuals it is usually forgotten, which means that we are obliged to remind each other to dispose of garbage in its place. Sometimes when reminded there are those who like it and some who don't like it when reminded by the teacher."

Consistency is essential for fostering better awareness and behavior regarding waste management, enabling students to understand the importance of maintaining environmental cleanliness and being responsible for their surroundings. This consistency should not only occur at school, the habituation and supervision of environmental care attitudes must also be prioritized at home by parents. Therefore, the principal's role as a role model must be reinforced with the support and active involvement of parents in promoting these values at home. Parental education is crucial to ensure that the values of environmental stewardship are continually instilled and practiced in daily life. This approach aligns with David Orr's ecoliteracy theory, which emphasizes the interconnectedness of ecological understanding, responsible behavior, and the role of education in shaping individuals who are conscious of their environmental impact. By integrating both school and home environments in promoting ecoliteracy, we can cultivate a generation that not only comprehends ecological principles but also embodies them in their actions.

Conclusion

The results of this study indicate that schools play a crucial role in instilling ecoliteracy to enhance students' environmental awareness. At SDN Susukan 07 Pagi, the integration of environmental education across subjects, along with self-development activities, role modeling, and environmental conditioning, has successfully increased students' awareness. However, some students still demonstrate limited environmental consciousness due to insufficient habits and understanding of ecoliteracy principles. Therefore, further efforts are needed to establish positive habits and provide relevant learning contexts. While this study sheds light on the school's role in fostering ecoliteracy, it also sets the groundwork for future research on enhancing environmental awareness and serves as a reference for teachers in integrating ecoliteracy values into their instruction.

Reference

- Adela, D., & Suprapmanto, J. (2023). Embedding Ecological Awareness Through Ecopedagogy Approach in Social Learning Elementary School. *Atlantis Press*, 297–304. https://doi.org/10.2991/978-2-38476-088-6
- Anto, R. P., Nur, N., Yusriani, Ardah, F. K., Ayu, J. D., Nurmahdi, A., Apriyeni, B. A. R., Purwanti, Adrianingsih, arita Y., & Putra, M. F. P. (2024). Metode Penelitian Kualitatif: Teori dan Penerapannya. In *Angewandte Chemie International Edition, 6(11), 951–952.* (Vol. 2).
- Astuti, A. D. (2016). Pengelolaan Program Sekolah Berwawasan Lingkungan dan Mitigasi Bencana (SWALIBA). Universitas Negeri Yogyakarta.
- Badan Pusat Statistik. (2023). Statistik Lingkungan Hidup (Environment Statistics Of Indonesia) 2023. In *Badan Pusat Statistik*.

- Campbell, C., Lacković, N., & Olteanu, A. (2021). A "strong" approach to sustainability literacy: Embodied ecology and media. *Philosophies*, *6*(1), 1–20. https://doi.org/10.3390/philosophies6010014
- Desmarais, R. (2024). Ecological Literacy: Definition, Early Articulations, Frameworks and Empirical Research. *Journal of Sustainability Education*, 29(March). http://www.susted.org/
- Edison. (2015). Pembelajaran Pembelajaran Konsep Reduce, Reuse, Recycle Dalam Mata Pelajaran Ilmu Pengetahuan Sosial Dengan Model Picture And Picture Untuk Meningkatkan Eco-literacy Peserta Didik; Penelitian Tindakan Di Kelas VII Sunan Gresik SMP Islam Insan Rabbany Kota. Universitas Pendidikan Indonesia.
- Firinci Orman, T. (2024). Exploring youth eco-literacy through lived experiences. 'When you purchase a pair of jeans, you bear the burden of child labor in South Asia.' *The Journal of Environmental Education*, 1–15. https://doi.org/10.1080/00958964.2024.2345354
- Goleman. (2010). Ecological Intelligence: Mengungkap Rahasia Di Balik Produk-Produk Yang Kita Beli (Edisi Baha). Gramedia Pustaka Utama.
- Gunadi, R. A. A., Iswan, I., & Ansharullah, A. (2020). Minimalisasi Penggunaan Produk Kemasan Plastik Makanan Jajanan Siswa Sekolah Dasar. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 3(1), 183–199. https://doi.org/10.35568/abdimas.v3i1.540
- Hasbullah, Juhji, & Maksum, A. (2019). Strategi Belajar Mengajar dalam Upaya Peningkatan Hasil Belajar Pendidikan Agama Islam. *Edureligia: Jurnal Pendidikan agama islam*, 3(1), 17–24.
- Heryanti, E., Matondang, M. N., & Wati, D. A. (2018). HUBUNGAN ANTARA PARTISIPASI SISWA DALAM KEGIATAN EKSTRAKURIKULER PRAMUKA DENGAN SIKAP KEPEDULIAN LINGKUNGAN HIDUP. *BIOSFER: JURNAL PENDIDIKAN BIOLOGI*. https://doi.org/10.21009/biosferjpb.9-2.8
- Karlina, F., Degeng, I. N. S. D., & Amirudin, A. (2017). Pengelolaan Sampah Melalui Group Investigation Berbasis Outdoor Study. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, 2(7), 991–1002.
- Kemendiknas. (2018). Panduan Pelaksanaan Pendidikan Karakter. Pusat Kurikulum dan Perbukuan.
- Khoerunisa, S. (2024). Karakter Peduli Lingkungan Peserta Didik Dalam Penerapan Eco Literacy Untuk Mendukung ESD Di Sekolah Dasar. *Jurnal Penelitian Pendidikan*, 24(1), 110–118.
- Köse, S., Savran Gencer, A., Gezer, K., Erol, G. H., & Bilen, K. (2011). Investigation of Undergraduate Students' Environmental Attitudes. *International Electronic Journal of Environmental Education*, 1(2), 85–96.
- Molnár, Z., Luhmann, H. J., & Kanold, P. O. (2020). Transient cortical circuits match spontaneous and sensory-driven activity during development. *Science*, *370*(6514). https://doi.org/10.1126/science.abb2153
- Mudjia, R. (2017). Studi Kasus dalam Penelitian Kualitatif: Konsep dan Prosedurnya. Universitas Islam Negeri Maulana Malik Ibrahim Malang.
- Patrisiana, P., Dike, D., & Wibowo, D. C. (2020). Pelaksanaan Literasi Lingkungan Di Sd Negeri 10 Kerapa Sepan Kecamatan Kayan Hilir Kabupaten Sintang. *JURNAL PEKAN: Jurnal Pendidikan Kewarganegaraan*, 5(2), 195–208. https://doi.org/10.31932/jpk.v5i2.939
- Permata, S. D., & Agung Wibowo. (2023). Implementasi Penguatan Kemampuan Ekoliterasi Siswa Sekolah Dasar. *Jurnal Riset dan Inovasi Pembelajaran*, *3*(3), 242–252. https://doi.org/10.51574/jrip.v3i3.1179
- Rahmahdini, R., Vivanti, D., & Heryanti, E. (2018). The Effects of different Counseling Method toward Housewives' Knowledge about Processing of the Household Waste. *Biosfer*. https://doi.org/10.21009/biosferjpb.7-2.5
- Rusdina, A. (2015). Membumikan Etika Lingkungan Bagi Upaya Membudayakan Pengelolaan Lingkungan yang Bertanggung Jawab. *Jurnal Istek*, *9*(2), 244–263.
- Setyaningsih, D., Handasah, R. R., Mamma, A. T., Krobo, A., Olua, E., & Iryouw, V. (2024). Fostering Eco-literacy and Naturalistic Intelligence through Environmentally Based

- Education in Coastal Preschool. *JPUD Jurnal Pendidikan Usia Dini*, 18(1), 251–269. https://doi.org/10.21009/JPUD.181.18
- Siswanto;, Karimullah;, Reni Prasetyawati;, & Nurhayati. (2019). ENVIRONMENTAL CULTURED EDUCATION AND ITS IMPLICATION ON THE STUDENT'S COMPETENCIES IN AN ADIWIYATA SCHOOL. *Cakrawala Pendidikan*, 38(3), 552–564. https://doi.org/10.21831/cp.v38i3.23154
- Sitorus, L., & Lasso, A. H. (2021). Pendidikan Karakter Peduli Lingkungan Melalui Pembiasaan dan Pembudayaan di Sekolah Menengah Pertama. *Edukatif: Jurnal Ilmu Pendidikan*, 3(5), 2206–2216.
- Staller, K. M., & Chen, Y. (2022). Choosing a Research Design for Qualitative Research A Ferris Wheel of Approaches. In *The SAGE Handbook of Qualitative Research Design* (hal. 69–86). SAGE Publications Ltd. https://doi.org/10.4135/9781529770278.n6
- Stone, M. K. (2017). Ecoliteracy and Schooling for Sustainability. In *EarthEd*. https://doi.org/10.5822/978-1-61091-843-5_3
- Tyas, D. N., Nurharini, A., Wulandari, D., & Isdaryanti, B. (2022). Analisis Kemampuan Ekoliterasi dan Karakter Peduli Lingkungan Siswa SD Selama Pembelajaran Daring di Masa Pandemi Covid-19. *Faktor: Jurnal Ilmiah Kependidikan*, *9*(3), 213. https://doi.org/10.30998/fjik.v9i3.11173
- Yudianti, O. F., Irianto, A., & Rosidah, C. T. (2020). Penanaman Karakter Peduli Lingkungan Melalui Program Sekolah Adiwiyata. *Jurnal Pendidikan Dasar*, 11(1), 109–117.